

**SPECIFICATION**

**JAMES T. BEATY**

**SANITARY, PORTABLE AND DISPOSABLE COVER FOR SHOPPING  
CART HANDLES AND SURROUNDING CART FRAMEWORK**

**CROSS REFERENCE TO RELATED APPLICATION**

This application claims the benefit of the priority filing date of the provisional application serial no. 60/457,356 filed on March 26, 2003.

**BACKGROUND OF THE INVENTION**

**1. FIELD OF THE INVENTION**

The invention relates to sanitary shopping cart covers in general, and in particular to a cover that provides a sanitary barrier over the cart handle and framework of the cart having a child's seat, where the framework is proximal to the front of a child's seat and which comes into contact with a seated child. The invention provides a sanitary surface for areas easily within reach of the child. Further, the invention is disposable, relatively inexpensive, easy to deploy and remove yet adhered, so that the seated child cannot easily remove the cover. The cover has images that are entertaining to a child, and provide an activity center for the child.

## 2. PRIOR ART

The prior art contains a wide range of shopping cart handle covers intended to protect children from touching unsanitary surfaces. The prior art fails to provide an easily portable, disposable product that covers more than the handle itself, in particular failing to provide a disposable product that covers the framework above the leg holes of a child's seat, which children may easily touch when properly seated in the shopping cart. Furthermore, the prior art fails to provide a set of multiple shopping cart covers, which together fit in a package that is easily portable by a shopping adult.

The prior art also fails to provide an easily portable, disposable product having a printed activity center which serves to occupy the child. In cases where the prior art provides a cover for just the shopping cart handle itself, the prior art covers fail to provide a disposable product that is easily portable.

Health reports include shopping cart surfaces as among the most germ-laden surfaces in public places. There remains a need for an economical, easy to transport, disposable product, which offers an effective barrier between a child seated in the cart and germs and other impurities that are often present on shopping cart surfaces that the child typically touches.

## SUMMARY OF THE INVENTION

The invention is a disposable and sanitary cover for preventing a child to come into contact with the surfaces of a shopping cart, where those surfaces are within easy reach of the child. The invention provides a cover for a shopping cart having a horizontal bar and a child's seat, wherein the horizontal bar is offset by a space from an adjacent restraint railing of the

child's seat. The restraint railing is typically the framework that is proximal to the front / leg hole of a child's seat. The horizontal bar, which is generally used as a handle for pushing the shopping cart, has a circumference and an overall length. The overall length is usually comparable to the cart's maximum width. The restraint railing has a perimeter and a sectional length. The disposable shopping cart cover is comprised of a flexible planar sheet of a sanitary polymeric film having a back side and a front side; and a pressure sensitive adhesive coating on the back side of the sheet. The sheet has a width that is greater than a sum of the space between the restraint railing and the horizontal bar, plus the circumference of the horizontal bar, and plus the perimeter of the restraint railing. The sheet has a first edge length that is less than the overall length of the horizontal bar, and a second edge length that is less than the sectional length of the restraint railing. Typically, the first edge length is about the length of the horizontal bar, and the second edge length is about the length of the restraint railing. The cover can be adhered and stretched taut across the space between the horizontal bar and the restraint railing, providing a sanitary protective covering over the horizontal bar and the restraint railing of the child's seat. The adhered planar sheet spanning the space provides an activity center. The adhesive coating is used to adhere the covering either directly to the bar and the restraint railing, or to loop around the bar and / or railing and attach with the adhesive coating face-to-face. The overall shape of the perimeter is determined by the framework of the restraint railing. The disposable shopping cart cover is cut to cover the horizontal bar and the restraint railing. Typically, suitable exemplary dimensions include a trapezoid, an isosceles trapezoid, a T-shaped trapezoid, a rectangle and a T-shaped planar sheet, however, it is anticipated that the cover can be sized to provide an appropriate barrier between the child and structures proximal to the child's seat.

The disposable shopping cart cover is preferably made of a transparent polymeric film, such as polyethylene or polypropylene or a copolymer thereof, where the film is reverse printed on the back side of the sheet. The resulting viewable images on the front side of the sheet are protected by the transparent sanitary polymeric film. The printing ink is not in contact with the child. The viewable images are selected to be entertaining and educational to children. Examples of viewable images are selected from the group consisting of cartoon characters, foods, text, items found in a grocery store, advertisements, and television personalities. The images can also be selected to enhance the shopping experience for the child, as items are selected from the shelves. The activity center can be used to teach abstract thinking, as the child can compare images (i.e., bananas, carrots) in the activity center with items in the grocery store. The boundary of the printed activity center is the area defined by the space between the restraint railing and the horizontal bar. Furthermore, the printed activity center can be used as a tray to hold snacks and a play area for toys. The printed activity center is sanitary, and when shopping is complete, the sanitary cover can be removed for disposal, therein eliminating and disposing of any mess or contaminate that may have been created by the child while occupying the shopping cart chair.

The pressure sensitive adhesive coating can be direct coated on the back side of the planar sheet, or coated as a doubled-coated tape having a reinforcing carrier film. One side of the double-coated tape is adhered to the back side of the sheet. In either case, the pressure sensitive adhesive coating is protected with a release liner that is removed just prior to / during application of the disposable shopping cart cover. In a preferable embodiment the double-coated tape is applied as two strips of tape, where a left strip extends from the first edge length

to the second edge length adjacent to a left side of the cover, and a right strip extends from the first edge length to the second edge length adjacent to a right side of the cover.

The restraint railing for the child's seat in a shopping cart can be reinforced with a supporting rod that normally extends vertically from the seat to the restraint railing. The supporting rod additionally serves as a barricade that prevents a child from slipping out of his seat under the restraint railing. In some shopping carts, the support bar is an assembly of vertical bars. In a version of the instant invention, the cover has a tearable perpendicular plurality of perforations, which initiates from a point about midway from the second edge length of the cover, where the plurality of perforations can be torn such that the perforation bifurcates a portion of the cover creating a slit and therein forming two "tails", that can accept the supporting rod. The two tails are adhesive coated, allowing the bifurcated portions to be either directly adhered to the restraint railing, or to loop around the restraint railing and attach with the adhesive coating face-to-face. This type of child's seat is especially common in grocery store shopping carts.

The invention can easily be removed from the shopping cart by grasping the disposable cover from underneath, and peeling apart the adhesive. The child's position is such that the disposable sanitary cover is out-of-sight, and therefore difficult and unlikely for a child to remove during use.

The film employed in the invention is preferably comprised of a polyethylene, a polypropylene or ethylene-propylene copolymer. The film is preferably clear. It is recognized that a nonwoven fabric or paper, or nonwoven film laminate can be employed to provide a sanitary barrier between the child and impurities on the cart surfaces; however, the advantage

of having a printable clear film is an important attribute of the invention. The activity center images are printed in reverse on the underside of the film, such that the ink is not in direct contact with the child.

The invention is individually folded and packaged together in groups in a travel package, which is of convenient size for portability in a person's diaper bag, pocketbook, briefcase, or other such item.

In applications where portability is not a requirement, the disposable shopping cart cover can be dispensed like tear-away leafs on a calendar, tear-away sheets on a roll, interleaved folded sheets in a dispenser, or stacked like Post-it® Notes by 3M, which have a removable adhesive binding the sheets together.

When considered in the context of the application, the invention, furthermore, is a shopping cart disposable cover system, said system comprising: a shopping cart having a horizontal bar and a child's seat, wherein the horizontal bar is offset by a space from an adjacent restraint railing of the child's seat, wherein the horizontal bar has a circumference and an overall length, and the restraint railing has a perimeter and a sectional length; a flexible planar sheet of a sanitary, innocuous polymeric film having a back side and a front side; a pressure sensitive adhesive coating on the back side of the sheet; wherein the sheet has a width that is greater than a sum of the space between the restraint railing and the horizontal bar, plus the circumference of the horizontal bar, and plus the perimeter of the restraint railing; wherein the sheet has a first edge length that is less than the overall length of the horizontal bar, and a second edge length that is less than the sectional length of the restraint railing; and wherein said shopping cart cover can be adhered and stretched taut across the space between the horizontal

bar and the restraint railing, providing a sanitary protective covering over the horizontal bar and the restraint railing of the child's seat, wherein the taut cover can serve as an activity center.

The features, benefits and objects of this invention will become clear to those skilled in the art by reference to the following description, claims and drawings.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

The foregoing and other objects will become readily apparent by referring to the following detailed description and the appended drawings in which:

FIG. 1 is a perspective view of the disposable sanitary cover deployed onto a standard shopping cart, which is particularly common in grocery stores.

FIG. 2 is a planar view of the invention illustrating the sheet as viewed from the front side, after it is removed from a packaging pouch, and prior to being affixed to a shopping cart.

FIG. 3 is a planar view of the invention illustrating the sheet as viewed from the back side, after it is removed from a packaging pouch, and prior to removing the release liner that is taken off when the disposable sanitary cover is affixed to a shopping cart.

FIG. 4 is a perspective view of multiple disposable sanitary covers packaged in a re-closeable disposable bag.

FIG. 5 is a planar view of a T-shaped embodiment of the invention.

FIG. 6 is a planar view of a T-shaped trapezoid embodiment of the invention.

FIG. 7 is an enlarged sectional view of a strip of adhesive covered by a release liner illustrating a finger lift to facilitate initiation of the removal of the release liner.

## DETAILED DESCRIPTION

The disposable sanitary cover 10 for a shopping cart is deployed as shown in Fig. 1. As can be seen from the figure the cover 10 provides a sanitary surface for a child, in that the cart's handle, horizontal bar 38, and the adjacent restraint railing 34 for the child's seat 32 are covered with a sanitary barrier, the invented shopping cart disposable cover 10. The shopping cart cover 10 is adhered and stretched taut across the space between the horizontal bar 38 and the restraint railing 34, providing a sanitary protective covering over the horizontal bar 38 and the restraint railing 34 of the child's seat 32. The invention simultaneously serves as an activity center 20, which has visually stimulating images and a tray for holding snacks or toys. From inspection of Fig. 1, it is apparent that the disposable sanitary cover 10 is a flexible planar sheet that is wide enough to be wrapped around the horizontal bar 38 having a circumference 40 and looped around the restraint railing 34 having a perimeter 42. The cover 10 has a first edge length 22 that is substantially the length of the horizontal bar 38, and a second edge length 24 that is substantially the sectional length of the restraint railing 34. The dimensions of the covering are sufficient to substantially provide a protective cover around the restraint railing 34 and the horizontal bar 38, and adhere to face-to-face. The planar sheet is a clear printed polymeric film having a back side 14 and a front side 16. The back side 14 is reverse printed, while the front side 16 is devoid of any printing ink. The clear film allows the images to be

clearly seen and still be ink free, sanitary and innocuous. The film is preferably comprised of polyethylene, polypropylene or a copolymer thereof. As can be seen, the child can sit in the child's seat 32, with their right leg 44 on one side of a supporting rod 36 and their left leg on the other side 46. The adhered back side 14 of the cover 10 is substantially out of reach of all but the most gymnastic recalcitrant children, and will be difficult to remove from the seated position.

Referring to Fig. 2, the front side 16 of the disposable sanitary cover 10 is a planar sheet having a clear sanitary surface. The illustrated embodiment is a rectangle 10a. The top half of the sheet is filled with viewable images 56 selected to be entertaining and educational to children. Typically the images are selected from the group consisting of cartoon characters, foods, text, items found in a grocery store, and television personalities. These viewable images 56 define the area previously described as the activity center 18. The cover 10 has a tearable perpendicular plurality of perforations 54. The perforations enable a portion of the cover to be bisected into two tails 60L and 60R, where the tails form a slit that can accept a supporting rod 36 for the restraint railing of the child's seat 32. The cover 10 then has two halves of second edge length 24 that are comparable to one half of the sectional length of the restraint railing 34.

Referring to Fig. 3, the back side 14 of the illustrated embodiment 10a is reverse printed and is adhesive coated. The adhesive coating 26 is in strips, which are positioned near the left lateral edge 27 and the right lateral edge 25, and extend from the first edge length 22 to the second edge length 24. The adhesive 26 is covered with a release liner 28 that is taken off when the disposable sanitary cover 10 is affixed to a shopping cart 30. The adhesive 26 is preferably applied as a double-coated tape, where the double-coated tape has a carrier 50 that

imparts strength to the planar sheet **12**, such that the sheet does not deform when the release liner **28** is being removed. Fig. 7 is an enlarged sectional view of a double-coated pressure sensitive adhesive tape **29** covered with a release liner **28** having a finger lift **52**. The liner **28** is wider than the adhesive **29**, creating an edge void that facilitates as a finger lift for the initiation and removal of the release liner.

The disposable sanitary cover **10** is packaged in a re-closeable disposable bag **62** in multiples of 1-100, as illustrated in Fig 4. The bag can be opened and closed using a re-closable seal **64**. Instructions for affixing the cover **10** are printed on the bag.

Referring to Fig. 5, which is a planar view of a T-shaped embodiment **10b** of the disposable sanitary cover **10**. The "T" portion of the planar sheet **12** is secured to the horizontal bar **38**. This embodiment would be particularly suitable for carts having a handle **38** that is substantially wider than the child's seat **32**.

Referring to Fig. 6, which is a planar view of a trapezoid embodiment **10c** of the invention, wherein the embodiment would be particularly suitable for carts having a handle **38** that is only slightly wider than the child's seat **32**. The second edge length **24** is only slightly narrower than the first edge length **22**. It is anticipated that the printing could be reversed for carts having a handle **38** that is only slightly narrower than the child's seat **32**.

The descriptions above and the accompanying drawings should be interpreted in the illustrative and not the limited sense. While the invention has been disclosed in connection with the preferred embodiment or embodiments thereof, it should be understood that there may be other embodiments which fall within the scope of the invention as defined by the following

claims. Where a claim is expressed as a means or step for performing a specified function, it is intended that such claim be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof, including both structural equivalents and equivalent structures.